

# ABSTRACT

To provide a voltage generating circuit for generating a boosted voltage on the basis of a power source voltage or any voltage.

A voltage generating circuit having a boosting circuit 1 for generating a voltage higher than a power source voltage, and a reference voltage generating circuit 2 for generating a reference voltage  $V_{ref}$  is equipped with a voltage variation detecting circuit 4 having a first input connected to the output of the boosting circuit 1, a second input having a power source  $V_{dd}$  and a third input connected to the ground  $V_{ss}$ , a control voltage  $V_{fd}$  being generated at a first output by making reference current equivalent to current occurring due to the potential difference between the first input and the second input flow into the third input, a differential amplifier circuit 61 for comparing the control voltage  $V_{fd}$  and the reference voltage  $V_{ref}$ , and a clamp circuit 62 for extracting current from the output of the boosting circuit 1 in accordance with the output of the differential amplifier circuit 61, thereby controlling the output voltage of the boosting circuit 1.